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Filament of harpe slender, uniform .....	<b>abfitchii.</b>
Filament of harpe broad, with a notch at base.....	<b>fitchii.</b>

SYNOPSIS OF SPECIES OF *CULISELSA*.

Three species are now known to be referable to this genus. They separate as follows on genitalic characters.

Inner lobe of side piece broad and angled, but without a spine ..... **tæniorhynchus.**  
 Inner lobe of side piece small, rounded, with a stout spine with hooked tip.

Side piece broad without ..... **inconspicuus.**  
 Side piece narrowed without..... **confirmatus.**

The student will find a synopsis of genera of Culicidæ, based on genitalic characters in the Proceedings of the Entomological Society of Washington, vol. vii, pp. 42-49, 1905.

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## Class I, HEXAPODA.

### Order V, LEPIDOPTERA.

#### NEW SPECIES OF NOCTUIDÆ FOR 1905, NO. 3.

BY JOHN B. SMITH, Sc.D.,

NEW BRUNSWICK, N. J.

#### ***Bryophila viridimedia*, new species.**

Head black, vertex snow white. Thorax deep wine brown, the tip of the collar a narrow dorsal line and the posterior tuft white. Primaries with basal space deep wine brown; this shade being limited by the t. a. line which crosses the cell squarely, one third from base, runs back along the median vein and crosses the submedian interspace one fourth from base, and again extends outwardly along vein 1, crossing to the outer margin one third from base, through the green of the median space which extends below vein 1 nearly to the base of the wing; forming a square black spot on the inner margin. The median space is bright, mossy green, crossed centrally by a deeper green median shade. The orbicular spot is round, broadly white-ringed and edged by a few black scales. The reniform is centrally constricted, hour-glass shape, broadly white-ringed, edged with blackish scales. Beyond the reniform a subquadrate black spot fills the space between it and the t. p. line. The t. p. line is composed of black lunules, followed by a narrow white line, its course as a whole an even outcurve. There is no obvious s. t. line, yet there is a shading that indicates a division of terminal and subterminal spaces. On the costa is an oblong deep brown patch extending from t. p. line to the point of the s. t. line, leaving the apex pale with a greenish overlay; below that is a violaceous shading which, on the inner margin forms a violet brown blotch just before the anal angle. Along the outer margin is a bronze

brown shading which extends inward at the middle and thus completes a mottling of the outer fourth of the wing. The fringes are solid deep brown. Secondaries soiled whitish, smoky outwardly: Beneath: primaries smoky, paler along costa where the inception of the lines of the upper surface are marked in blackish; apex pale; secondaries whitish, powdery along the costa, smoky at apex, with a narrow smoky extra-median line and a small discal lunule.

Expands: 1.20 inches = 30 mm.

*Habitat.* — Cochise county, Arizona, June 24.

One male in very good condition from Mr. George Franck. A very beautiful species and a distinct acquisition to our fauna. It may be that when a revision of this group is made that this species will not be placed in the typical genus.

#### Genus **ACRONYCTA** Ochseneheimer.

Since the publication of the Revision of this genus by Dr. Dyar and myself, considerable material has come to hand which has somewhat modified my opinion as to the standing of certain forms. Dr. William Barnes also was good enough to send me a large series for further comparison, which proves the distinctness of forms previously considered identical.

#### **Acronycta obscura** Hy. Edwards.

I have referred this as a synonym of *americana* but believe now that it is probably a good species. The material is scanty and, except for the fact that the range of variation is not so great as I concluded on a previous study, would not authorize changing the present status of the name. I have only a single example myself and know of no others except the types.

#### **Acronycta denvera**, new variety.

Closely allied to and probably a variety of *dactylina*. It differs in the more even, less powdery and somewhat creamy-tinted primaries which are really more nearly like those of *hastulifera*. The secondaries, however, are pale in both sexes and not much more powdered in the male than in the female. All the specimens, 2 males and 4 females, are from Denver, Colorado, and dated July, where they have any date at all. There is no difficulty whatever in separating the two forms where they are comparable in sufficient numbers.

#### **Acronycta eldora**, new species.

Belongs to the *americana* group and is a close ally of the typical species. The median lines are well defined, geminate, powdery, black rather than brown, the t. a.

line tending to become obscure. There is no basal streak, but the dagger mark is distinct in every specimen; usually it extends outwardly from the inner portion of the t. p. line; but it may be extended a little inwardly as well. The ordinary spots are of good size but tend to an irregularity in form, the orbicular becoming elongate to the extent of fusing with the reniform. The ground color of primaries is whitish gray, powdered with black scales so as to give an impression of thin scale covering, less marked in the female than in the male. Secondaries in the male are whitish with a diffuse extra-median dusky line; in the female with a fuscous or yellowish tinge.

Expands: 2.00-2.40 inches = 50-60 mm.

*Habitat*: Denver, Colorado, in July; Glenwood Springs, Colorado, July and August.

Eight examples in good condition and evenly divided as to sex. One pair is from Denver and were received years ago, probably from Mr. Bruce; the others are from Dr. Barnes. In 1898, with only one pair at hand, I believed this to be a local variation; comparing the specimens in Dr. Barnes' collection last spring he declared his belief that they were specifically distinct; a belief which I now share after closer comparison with additional material.

***Acronycta similana*, new species.**

Ground color a blackish powdery gray, like a dense black powdering over a whitish base. Orbits of the eye and base of antennæ white, head and disc of thorax otherwise the darkest portions of the insect. Primaries with a slender black basal streak, forking at the t. a. line which is indicated at the costa and on the inner margin. T. p. line continuous, lunulate in part, blackish, preceded by white shadings. Preceding the line in the submedian interspace is a more diffuse dark shading, through which a slender black streak crosses the t. p. line, forming a dagger mark. Fringes whitish, narrowly cut with blackish. Orbicular obscure, narrowly blackish ringed. Reniform a blackish blotch. Secondaries white with blackish sparse powderings, veins narrowly fuscous. Beneath, whitish with black powderings, each wing with a vague exterior line and a blackish discal spot.

Expands: 1.75 inches = 44 mm.

*Habitat*. — Chicago, Ill., June 15, Mr. A. Kwiat.

At first sight suggests a suffused *populi*; but the line of variation does not run that way in *Acronycta*, and though there is only one good male before me, Mr. Kwiat informs me that several others have been taken. I therefore prefer to consider this a good species at present.

***Acronycta sperata*, race *speratina*, new.**

A series of 10 males and 2 females from Colorado shows some interesting differences from the type, albeit none departs for a consid-

able distance beyond what we would consider typical. With only a few examples at hand a new species is indicated: with a good series the existence of a very distinct form is obvious, and this I have called *speratina*.

It is somewhat larger, more heavily built and, on the whole, paler, more ashen gray in color than the type: the maculation is more diffuse, less definite and altogether more obscure than is usual in eastern examples.

Expanse as in the type.

*Habitat*. — Denver, Colorado, in July; Dr. Barnes.

**Acronycta cæsarea, new species.**

Head, thorax and primaries ashen gray, powdery, the dusting smoky olivaceous with a slight bronze lustre. Base of antenna with white scales and a white line at base of collar. Primaries with the median space a little paler than the rest of the wing, the markings fairly distinct, but the impression on the whole is one of uniformity. Basal line geminate, powdery, blackish, both portions equally defined. T. a. line geminate, black, the parts equally defined, included space broad, very even and outwardly oblique. The veins through the basal space are black marked and there is a little inward tooth from the middle of the t. a. line, but no basal streak or dash. T. p. line with a long outcurve over the cell and a well-marked incurve below; geminate, the inner portion smoky, partly lunate, the outer chiefly marked by the darker shade of the s. t. space, which, indeed, extends to the fringes. A vague s. t. line or shade is indicated by some irregular whitish blotches. Orbicular round, whitish with a dusky center. Reniform of good size, broadly kidney-shaped with a whitish spot and a central lunule. Secondaries uniform smoky, the veins a little darker; discal spot and shade of under side faintly visible. Beneath, primaries very dark smoky, somewhat blotchy; secondaries whitish, powdery along the costa, the veins blackish, a broken blackish outer band and a distinct discal spot.

Expands: .95 inches = 24 mm.

*Habitat*. — Essex County Park, N. J., May 20.

One good male from Mr. W. D. Kearfott. The species is smaller and narrower winged than *retardata*, which it otherwise resembles in a general way. The very uniform ashen gray and the small ordinary spots will further serve to distinguish the species.

**Aplectoides speciosa, variety arctica Zetterstedt.**

Hampson, in his monographic work, makes "Ab. 2 *arctica*. Small and dark with the markings indistinct. Alpine and Arctic." I have seen alpine specimens that agree with this characterization; but have in hand now a male example from Mt. Rainer, Washington, which is very dark, almost blackish, the markings indistinct, but equals in size the typical form. Besides being indistinct, or better

indefinite, the markings are reduced and increased in contrast, the inclosed parts of the median lines and filling of the ordinary spots being white. The species is not common in collections at any time and the occurrence of this unusual form in a new locality is worthy of note; hitherto the species has not been recorded at all from the Pacific coast, so far as I am aware.

***Aplectoides arufa*, new species.**

Resembles in general appearance *A. imperita*, but has none of the reddish or brown shadings of that species and is altogether less marked. The ground color is a dull fuscous gray, the markings darker, emphasized by a few black scales only, and there are none of the contrasts that make the eastern species so recognizable. The median space is concolorous, the median shade is vaguely defined, and there are no black marks on the s. t. line; but the terminal lunules are large and distinct. The secondaries are smoky, whitish at base, with a broken terminal line, a dusky discal lunule and a smoky extra-median line.

Expands: 1.50 inches = 37 mm.

*Habitat.* — Yellowstone Park, Wyoming, in August.

One good male. The relationship to the eastern species is obvious; but so is also the difference. I have *imperita* from Labrador that are smaller with much more sharply defined markings than my example from Mt. Washington and, while the New Hampshire specimens differ among each other, none of them vary in the direction of *arufa*.

***Aplectoides fales*, new species.**

Head, thorax and primaries a rather even smoky gray, with a slight olivaceous tinge. Head and collar somewhat paler, with a slight reddish admixture. Dorsal tuftings of thorax with a brown shade; patagia well marked. Primaries without strong contrasts, all the maculation traceable, the ordinary spots and an area between reniform and s. t. line on costa more whitish. Basal line distinct, geminate, blackish, with whitish included space. T. a. line geminate, outer defining portion blackish, inner smoky; included space ashen gray; as a whole the line is outwardly oblique, a little curved, with small outcurves in the interspaces. T. p. line geminate, inner portion blackish to black, lunulated; outer portion obscure or smoky, crenulated, included space gray; as a whole the line has only a slight outcurve over the cell and only a very little incurve below it. S. t. line gray, a little irregular, preceded by a distinct black shade which becomes inwardly diffuse and is the most conspicuous portion of the wing. There is a slender, lunulate black terminal line. A vague median shade darkens the space between the ordinary spots and part of the outer portion of the median space. Claviform concolorous, small, pointed, narrowly black lined. Orbicular large, pale gray, not defined above, broadly V-shaped. Reniform moderate in size, kidney-shaped, gray, rather well defined by a narrow black line. Secondaries an even smoky gray, the fringes white. Beneath pale gray, powdery, both wings with smoky outer bands and smoky discal spots.

Expands : 1.42 inches = 35 mm.

*Habitat.* — Calgary, Alberta, July 2, '96.

Probably received from Mr. Dod though the specimen does not bear his label. It is a broad-winged form more like *imperita* than *pressa* and yet not unlike an obscurely marked *pressa*. I have hesitated long before describing it and do so now only because this may be really the male of the following species — *discolor* — despite the differences in wing form and maculation.

***Aplectoides discolor*, new species.**

Head, thorax and primaries very pale gray, almost white, powdered with black. Head immaculate, collar with a vague dusky line across the middle. Thorax powdery, patagia obscurely submargined. Primaries irregularly shaded and powdered, with conspicuous contrasts and varying greatly. Basal line geminate, marked on costa, blackish. T. a. line geminate, not well defined, as a whole outwardly oblique and with a little outcurve. T. p. line geminate, obscure, marked only by pale included space or by occasional smoky or blackish scales; as a whole a little outcurved over the cell and a little incurved below. S. t. line white, a little irregular, preceded by a more or less continuous black shade which becomes diffuse inwardly. A series of small black terminal lunules. An obscure median shade. Space before and between the ordinary spots is the darkest part of the wing, a black bar connecting the spots inferiorly. Claviform large and broad, incompletely outlined. Orbicular large, round or oval, black margined, center with or without a dark spot. Reniform moderate in size, kidney-shaped more or less completely outlined, the center powdered with blackish. Secondaries whitish with a smoky suffusion which forms an obscure submarginal band and discal lunule; the fringes white with a dusky line at base. Beneath gray, powdery, with a more or less obvious extra-median line and discal spot.

Expands : 1.55-1.65 inches = 39-41 mm.

*Habitat.* — British Columbia; Inverness, July 16; Mouth of Skeene River, June 29.

Two females received from Dr. James Fletcher, both somewhat defective and illustrating extremes in ornamentation. The ground is white in both cases: in one specimen the cell except for the ordinary spots is well darkened, but as for the rest the powdering is scant and scarce sufficient to mark any except the s. t. line; there is merely a vague mottling. In the second specimen the black is diffused over the entire wing and the ordinary lines are marked by the white included spaces. The wing form is like that of *pressa* and the paler specimen might at first be mistaken for that species or yet more easily for *condita*. Although *fales* may possibly prove to be the male of *discolor* it would be the first instance in this genus of a sexual difference in wing form.

***Rhizagrotis perolivalis*, new species.**

Head, thorax and primaries gray, overlaid by a dark olive. Head with white scales intermixed and with the lower half whitish. Collar whitish below a median black transverse line, and sometimes white tipped. An oblique white line on the patagia from the costal insertion of primaries to the anterior divided crest; edges of patagia also white in one specimen. Primaries with the costal region whitish to the t. p. line and the s. t. space with whitish powderings. Basal line distinct, white, with black scale edgings. T. a. line white filled, outwardly defined by a broad, somewhat diffuse black line, inwardly by a smoky line; in course almost upright to the submedian vein, outcurved in the interspaces, with a long outward bend below vein 1. T. p. line almost parallel with the outer margin; geminate, outer line incomplete, narrow, even; inner line narrow, a little crenulate, blackish, included space more or less whitish. S. t. line of the pale ground or whitish, preceded by black sagittate spots so arranged as to give the appearance of white rays on veins 3 and 4 and 6 and 7. A narrow black terminal line. There is a black edging below the median vein in the basal space. A yellow bar extends from the end of the claviform to the t. p. line. Claviform concolorous, narrow, rather elongate, edged with black. Orbicular narrow, oblique, black-edged, white filled. Reniform kidney-shaped, rather narrow, black-edged, whitish powdered. Secondaries pale smoky yellowish, outwardly darker, the fringes white. Beneath gray, powdery, especially toward the margins.

Expands: 1.36-1.40 inches = 34-35 mm.

*Habitat.* — Calgary, Alberta, head of Pine Creek, July 9, 10, 14.

One male and three females, all in good condition from Mr. F. H. Wolley Dod. The species has a close superficial resemblance to the *4-dentata* series of *Euxoa*, and with only the female at hand I associated it with *olivialis*. The receipt of the male and of additional females makes it possible to determine the genus in which the species has no close allies, superficially. It may be that *terrealis* which I referred to *Chorizagrotis* will eventually be associated with this species in *Rhizagrotis* or that because of the general agreement in type of maculation, *perolivalis* will go to *Chorizagrotis*.

***Noctua acarnea*, new species.**

Head and collar deep, almost purplish brown; collar with a blackish transverse line; disc and thorax more reddish, patagia almost carneau, and much brighter than any other part of the insect. Primaries very dark, almost blackish brown, with a purplish tinge, with a reddish shade in the upper portion of median space, most obvious in the reniform. Basal line geminate, broken, outer part of line blackish, inner obscure, included space reddish; as a whole, nearly upright. T. p. line obscurely geminate, irregular, with an even and not very marked outcurve. Inner part black-marked, emphasized by some reddish scales following. S. t. line somewhat irregular, reddish, punctiform, a little emphasized by darker shadings. Fringes concolorous. Claviform small, incompletely outlined, obscurely shaded with reddish.



Orbicular large, round, concolorous, edged by black scales and some reddish powderings. Reniform large, kidney-shaped, filled with reddish powderings; edged with black scales; the space between the spots somewhat darker. Secondaries dull, pale, smoky yellowish, tips of fringes paler. Beneath smoky gray, powdery.

Expands: 1.56 inches = 39 mm.

*Habitat.* — Banff, Alberta; N. B. Sanson, "Museum," July 11, 1902.

One good male, received through the courtesy of Dr. James Fletcher. The species is an obvious ally of *bicarnea*, with a similar excavation in outer margin of secondaries below apex; but it lacks the characteristic shadings and the details of maculation, especially in the ordinary spots, are quite distinct.

#### ***Euxoa sotnia*, new species.**

Ground color very pale gray with a luteous tinge, densely powdered with black scales, especially in the female. Collar usually with a more or less obvious transverse line; but that is often wanting. Thoracic vestiture a mixture of fine and flattened hair, varying somewhat in proportion; the collar, patagia and crests well marked in good examples; but not prominent. Primaries rather narrow, elongate with the apex more reduced than usual; all the lines present, but broken and more or less obscured by the powdering. Basal line geminate, obscurely marked. T. a. line upright, or only a little oblique, a little outcurved in the interspaces; geminate, inner line tending to become lost, outer diffuse, more or less broken; sometimes the entire line hardly traceable. T. p. line geminate over costal region, abruptly bent over cells then very even to the inner margin, the inner line more or less diffuse, sometimes nearly even, sometimes lunulate and sometimes crenulate; but always traceable. S. t. line irregular, always traceable, variably distinct; sometimes defined by an even dusky terminal space; sometimes also by a preceding shade; occasionally only picked out by light scales. Apex usually concolorous, the inception of s. t. line on costa often preceded by a blackish shade. A series of terminal dots or small lunules is often present; but as often wanting. Fringes variable. There is a diffuse dusky median shade that darkens the cell between the ordinary spots, and then runs close to and parallel with t. p. line, often darkening the outer part of median space. This shade is variably developed but always recognizable in some form. Claviform wanting. Orbicular round, varying in size, rarely defined, sometimes concolorous; sometimes discolored; rarely with a dark center. Reniform of good size, kidney-shaped, never completely defined, sometimes scarcely traceable. Secondaries white, with a narrow dusky edging in the male: in the female they are sometimes equally immaculate; but the tendency is to a smoky outer border beyond an extra-median line, and sometimes a discal spot is also traceable. Beneath, more or less powdery, sometimes almost immaculate, ranging to forms in which the disc of primaries is blackish. and there is an obvious extra-median line on both wings.

Expands: 1.15-1.38 inches = 29-34 mm.

*Habitat.* — Stockton, Utah, September 9-24.

A series of eight males and nineteen females, mostly fair, from from Mr. Tom Spalding. The species is variable as has been indicated in the description, and it has no very close allies. At first sight it looks like *alcesta*; but the median shade separates the two and the narrower, more pointed primaries are also characteristic.

***Euxoa alcesta*, new species.**

Ground color very light yellowish ash gray, sometimes with a faint reddish tinge, irregularly and rather sparsely powdered with coarse blackish atoms. Head and thorax concolorous, collar sometimes with a defined subapical line. Thoracic vestiture mostly flattened hair, collar and patagia not well defined, the crest obscure. Primaries with the lines all geminate, all broken and no contrasts. Basal line marked on costa and below median space. T. a. line a little oblique outwardly, only a little irregular; outer portion of line best marked. T. p. line with the outer line vague, inner more or less crenulate, course nearly parallel to outer margin. S. t. line pale, irregular, tending to form dents at its middle, marked by the uniformly darker terminal space and, sometimes, by a preceding dusky shade as well. There is a series of small black terminal lunules, followed by a yellowish line at base of fringes. Claviform wanting in all examples before me. Orbicular round, of moderate size, imperfectly defined, concolorous with ground. Reniform obscurely marked, apparently of good size and kidney-shaped. The cell between these spots is more or less darkened and sometimes even black. Secondaries white in the male, with a very narrow dusky edging. In the female the wings are a little soiled, and there is a tendency to an extra-median line. Beneath whitish, with a more or less obvious common line and a discal spot, both best marked on primaries.

Expands: 1.24-1.50 inches = 31-35 mm.

*Habitat*.—Stockton, Utah, Sept. 5-26.

Ten males and six females from Mr. Spalding, all in fair condition. There is not much variation save in the matter of powdering, which brings out a little more or less contrast, locally or generally. The relationship is in part to *candida* and in part to *pallipennis*; the former is more chunky and the marking is not well defined; the latter is even in color and does not have the powdery surface.

***Euxoa anacosta*, new species.**

Ground color ashen gray, with a brown tinge, which is more obvious in the male than in the female, and gives the prevailing shade of the male primaries. Head paler than the ground, immaculate or with an obscure frontal line. Collar concolorous with head and costal region inferiorly, this pale shade limited by a more or less obvious black line across the middle, the upper half concolorous with thorax. Thorax more or less mottled with smoky brown, differing in shade, not maculate, usually the darkest portion of the insect. Primaries with costa as pale as the palest part of the disk, but not contrasting. The terminal space is evenly smoky and the darkest part of the wing: a dusky shade extends through and a little below the cell, and some

cases the entire median space is darkened. There is a variably distinct basal black dash, always broken by the basal line and rarely extending to the t. a. line. Basal line geminate, marked on costa and below median vein only. T. a. line geminate, defining lines blackish, broken, outwardly oblique and outcurved in the interspaces. T. p. line geminate on costa, outer line lost over cell, inner line crenulate, tending to become lost in the male, outwardly bent on costa and then evenly oblique below. Apex pale, breaking the pale irregular s. t. line which is preceded by a variable number of black sagittate marks. A series of small black terminal lunules. Fringes concolorous, with a very narrow pale line at base. Claviform narrow, pointed, extending to the middle of the median space, outlined in black, the concolorous center sometimes very narrow. Orbicular varying from round, complete, to oblique, oval or oblong; closed or open on costa; white ringed, the ring edged with black scales, the center of the palest ground. Reniform of good size, kidney-shaped, white ringed, edged with black scales, center usually pale. Secondaries white with a narrow dusky edging in the male, thinly smoked in the female, darkening outwardly to the white fringes.

Expands: 1.20-1.50 inches = 30-37 mm.

*Habitat*.—Stockton, Utah, Sept. 20-25.

Eleven males and about eighty females, collected by Mr. Tom Spalding. The species resembles *segregata* and was separated from a mixed lot of over five hundred examples, all of which were believed to be one species. As compared with *segregata* the new species does not have the contrasting costa and collar, and the contrasts of the disc of primaries are lacking. Altogether this is a more quietly marked form in which the transverse maculation is much better developed. The contrast between the sexes is well marked and the male is altogether brighter than the female.

#### **Euxoa bialba, new species.**

Head and thorax ranging in color from reddish gray to deep purplish brown, head sometimes paler, sometimes concolorous; collar usually with an obvious transverse black line, sometimes paler inferiorly. Primaries brown, variably overlaid by lilac gray, darker over costal region and in terminal space, ordinary spots brought into relief by the black filling between them. Basal space usually a little paler than the rest of the wing, basal line usually distinct, geminate. T. a. line geminate, black, the lines narrow, usually well defined, inner often wanting, only a little oblique, with three almost equal outcurves in the interspaces. T. p. line geminate on the costa, not well defined, and usually lost over the cell; sometimes traceable as a crenulate smoky line parallel with outer margin. S. t. line pale, narrow, a little irregular, marked by a preceding costal shade as against the pale apex, and below that by the usually darker terminal space. There is a narrow, somewhat lunulate blackish terminal line and a narrow yellow line at the base of the brownish fringes. Claviform narrow, short, rarely outlined, sometimes indicated by a few scales only. Orbicular large, round or oval, concolorous or paler, rarely dark centered, edged with black

scales. Reniform kidney-shaped, large, incompletely defined outward and inferiorly, concolorous or a little dusky below. The space between the spots always darker and sometimes black, contrasting. Secondaries white in the male, only a little smoky outwardly in the female. Beneath pale, powdery, primaries always darker and sometimes quite smoky, always with a discal spot and sometimes with a partial exterior line; secondaries usually powdery along the costa only, sometimes with a discal spot, not rarely uniformly whitish.

Expands: 1.12-1.40 inches = 28-35 mm.

*Habitat*.—Stockton, Utah, September 9 to October 2; Volga, South Dakota, without date.

Seven males and ten females; most of them more or less defective, from Mr. Tom Spalding and Mr. P. C. Truman. The species resembles *albipennis* and is a close ally. It differs in that the sexes are similar and the female is not darker than the male. It is more than probable that many of the western *albipennis* will be found referable to this species, and that the true *albipennis* with the darker female, = *nigripennis*, will be found to be an eastern and northeastern species.

***Euxoa zembla*, new species.**

Ground color a dull, luteous gray with white and blackish powderings. Head and thorax concolorous, varying as the amount of light and dark powdering varies, and sometimes forming obvious transverse lines on the collar. Primaries with all the maculation present but not distinct, everything seeming rather diffuse from the powderings. Basal line geminate, outer line broader and darker, on the whole outwardly oblique, outcurved in the interspaces, the curves unequal. T. p. line geminate on the costa, the outer line lost in the outcurve, inner line lunulate, the points being emphasized so that it sometimes is almost crenulate; rather abruptly bent on the costa and very evenly oblique from the outcurve to the inner margin. S. t. line pale, chiefly marked by the darker terminal space and sometimes by preceding shades or spots which become most obvious above the hind angle and opposite cell: sometimes veins 3 and 4 are a little indented, but that is a variable feature. There is a row of black terminal lunules, beyond which there is a pale line at base of fringes. A median shade-line darkens the space between the ordinary spots and then runs close to and parallel with the t. p. line; but that is a variable feature, and sometimes wanting. Claviform small, variable in form and in distinctness of outline, never contrasting. Orbicular varies from round to oval, sometimes complete, sometimes open above, with narrow black outline and a broader, more obvious whitish annulus; the center concolorous. Reniform of good size, kidney-shaped, a little oblique, defined like the orbicular. Secondaries in the male white, with a narrow dusky edge and the veins a little smoky; in the female usually a little smoky throughout, becoming darker outwardly, fringes white. Beneath powdery, primaries quite dusky, all wings with a discal spot.

Expands: 1.25-1.46 inches = 31-36 mm.

*Habitat*.—Stockton, Utah, Sept. 4-22.

Four males and nineteen females, mostly in good condition, from Mr. Tom Spalding. This species reminds one somewhat of *pleurritica* and belongs in the same group. The antennæ are rather broadly fringed in the male and the primaries are rather narrow, with somewhat marked apices.

***Fishia betsia*, new species.**

Head, thorax and primaries bright ashen gray with fine black powderings which give it a slightly bluish tinge. Collar with a black median line. Patagia with a distinct black line at base of wings and an obscure darker margin along the disk. Primaries with a black basal streak, sharply defined above, a little diffuse below, which extends well into the median tooth of the t. a. line. T. a. line single, black, broken, slender, with three long outward teeth, the first of which touches the orbicular, the second meets an inward tooth of the t. p. line and the third, least marked of all, reaches the middle of the median space. The t. p. line is vaguely indicated by a paler shading only until opposite the cell; then a series of black interspaceal streaks and a few black scales indicate the presence of the line to vein 2, below which there is a distinct black inward tooth which meets the t. a. line. There is a series of black terminal lunules at the base of the interlined fringes. Claviform concolorous with a fine black outline, extending above the median tooth of the t. a. line to the t. p. line. Orbicular large, oblique, a little paler than the ground, bordered by black scales at its anterior margin only. Reniform upright, oval, of moderate size, a little paler than the ground, very ill defined. Secondaries white, the veins a little dusky, with a series of blackish terminal lunules and a reflected round discal spot. Beneath whitish, with gray powderings; both wings with a round discal spot of moderate size.

Expands: 1.50 inches = 37.5 mm.

*Habitat.* — Stockton, Utah, October 4, 1904, Spalding.

One male in good condition; the female will probably be found to be larger, darker, with better defined maculation. The species differs from all those heretofore described by the very light ashen gray primaries and clear white secondaries. *Exhilarata*, its nearest ally, is distinctly darker and with heavier markings. I have seen a female collected by Mr. Spalding, October 6, 1903, which agrees in all respects with ♀ *vinela*, the ♂ of which bears no resemblance to the new form.

***Mamestra tufa*, new species.**

Ground color bluish pale gray with slight brownish tintings. Head with a frontal line, collar with a median band, disc of thorax powdery, without obvious markings. Primaries narrow, elongate, pointed, the outer margin notched. All the transverse maculation except s. t. line broken, obscure, though the course of the strongly angled t. a. line can be made out in part. S. t. line whitish, broken, very close to outer margin which is reached by the w on veins 3 and 4, preceded by blackish brown shadings which are most obvious opposite the cell and above anal angle.

There is an obscure black line, broken into scales through the submedian interspace, best marked at base. The ordinary spots are fused inferiorly, the lower and outer margin of the combined spot shaded with deep brown, the upper and inner tending to obsolescence. As a whole the wings look strigate without actually being so. Secondaries white. Beneath white, with a little blackish powdering, most obvious on primaries.

Expands: 1.55-1.60 inches = 39-40 mm.

*Habitat.* — Stockton, Utah, August 30.

Two male examples, neither of them very good, collected by Mr. Tom Spalding. One of them, from Dr. Barnes, is labelled '02; the other, from my own material, is labelled '04; the inference is that the species is not common. This species is an ally of *nugatis* and the smallest of the *purpurissata* type. It is an exaggeration of the *juncimacula* style of maculation and agrees with *nugatis* in the white secondaries. The yet narrower primaries, much lighter bluish gray color and the differences in details distinguish it from the latter species.

#### **Mamestra agnata, new species.**

Ground color a rather uniform ashen gray, a little darker in the female than in the male. Collar with a distinct black cross-line, patagia with black submargin. Primaries with all the lines and marks cleanly defined and complete, yet nothing contrasting except a lunule in the s. t. line above the anal angle, which is white and relieved by a preceding blackish shade. Basal line geminate, blackish, irregular. T. a. line geminate, outer portion usually more obvious; a little outcurved, even or a little outcurved in the intervals. T. p. line almost evenly bisinuate, inner line broader and barely lunulate. S. t. line whitish, making two rather even outward curves with an angle between them, emphasized by a dusky following shade and in the s. m. interspace as already described. A black, scarcely lunate terminal line. A yellow fine line at the base of the long fringes which are cut with blackish. There is a median shade which darkens the space between the ordinary spots and extends below to the inner margin. Claviform moderate or small, black margined, and beyond and partly over it is a reddish brown shading, the only patch of color in the wing, and that not always present. Orbicular moderate or large, round or a little irregular, black edged, annulate with pale gray, center concolorous or nearly so. Reniform upright, of good size, black margined, with a pale interior ring, and the disc paler than the ground, but not contrasting. Secondaries a little smoky in the ♂, decidedly so in the ♀; even in both cases. Beneath, gray, powdery, darker in the female, a common extra-median line and on the secondaries a discal spot.

Expands: 1.25-1.35 inches = 31-34 mm.

*Habitat.* — Redington, Arizona.

Three males and two females from Dr. Barnes, all in good condition and all without date. This species has the antennæ in the ♂ marked and bristle tufted, and is an ally of *M. gnata* Grt., which

occurs in the same faunal region. It differs materially, however, in the clearly written maculation and in the entire absence of the color characters of Mr. Grote's species.

**Mamestra basiplaga, new species.**

Dull fuscous brown, powdered and suffused with blackish. Head and collar paler, more reddish; head with a median cross line, collar with a black band at about middle, above which it is often of the darkest thoracic shade. Disc of thorax varies from a brown mottling to a blackish purple. Primaries with the upper half of basal space and the s. t. space generally, shaded or suffused with reddish brown in the male, this verging toward lilacinous toward the inner margin. Basal line geminate, obscure, usually traceable to a black longitudinal streak which extends almost to the t. a. line and is obvious in most specimens. Another black streak along inner margin at base, seems to be less constant. T. a. line geminate, inner line obscure, outer blackish, as a whole very irregular in course, nearly upright. T. p. line geminate, obscure through the brown area beyond the reniform, distinctly though not strongly incurved in the s. m. interspace. S. t. line irregular, broken, whitish, partly defined by the dark terminal space and in part by the preceding smoky blotches. A black line at base of fringes, which are cut with yellowish-brown. Claviform broad, rather short, triangular, concolorous, defined by a black outline, a black line generally extending from it to the t. p. line. Orbicular round or oval, usually pale ringed; but this varies greatly as does also the filling. Reniform small, oval, narrow, oblique, outer portion always white lined, usually edged with black scales, so that the outer margin stands out by contrast. Secondaries in the ♂ whitish at base, becoming dusky toward outer margin at apex; in the ♀ smoky fuscous throughout except at extreme base. Beneath, primaries smoky, darkest in the ♀; secondaries whitish, powdery along the costal area, with a discal spot.

Expands: 1.12-1.16 inches = 28-29 mm.

*Habitat.* — Huachuca Mts., and Southern Arizona, Poling.

Three males and six females, all from Dr. Barnes. No two are alike, and yet all have a similarity of habitus that brings them together. The general reference is to the *vicina* series, which the male genitalia seem to bear out from such examination as I could make of the specimens.

**Mamestra imbuna, new species.**

Dark ashen gray, head and lower half of collar often with a reddish tint, primaries with usually a reddish flush beyond the reniform. A distinct black line below the apex of collar. Patagia more or less obviously submargined with black. Primaries with a short curved black streak at base, above which the wing is usually a little lighter. T. a. line rather well removed from base; geminate, even, the outer line best marked, included space gray, as a whole with an oblique outcurve. T. p. line geminate, slender, the inner portion blackish, included space narrowly gray, outer portion often lost; as a whole even, with a wide bend over cell and a marked constriction in the submedian interspace. S. t. line irregular, broken, preceded by

variably defined dusky spots and sometimes by darker shades; just before the anal angle rather prominently marked by white scales. There is a narrow black line at the base of the fringes which are dark and narrowly cut with yellowish. Claviform large, conical, black-ringed, extending across the median space, the apex on the t. p. line. Orbicular large, irregular, oblique, black-ringed, the center concolorous or a little paler, the anterior margin resting on the t. a. line or connected with it by a black shading. Reniform large, extending above and below the cell, rather narrowly kidney-shaped, both ends resting on the t. p. line. Secondaries in the male whitish, becoming blackish at the margins; in the females more evenly smoky as a rule. Beneath primaries dark smoky brown, powdery; secondaries whitish in the male, darker in the female, powdery, with an outer line which in the female tends to become the inner margin of a distinct dark border.

Expands: 1.20-1.34 inches = 30-34 mm.

*Habitat.* — Lucerne County, Pennsylvania, in April; Hessville, Indiana, August 14.

Four males and 4 females in fair condition are at hand. Seven of the examples were received from Mr. George Franck and the females are uniformly darker and have the primaries broader than the male. The eighth specimen is a female, received from Mr. Kwiat, which is in all respects like the Pennsylvania males and shows none of the color differences above noted. The species is allied to *vicina* in wing-form and has a well marked excision below the apex of secondaries.

***Mamestra uliginosa*, new species.**

Dull blackish brown to blackish, powdered and marked with white. Head and thorax more gray, powdery, head with one or two transverse darker lines; collar with a black median line; patagia with dark margins. Primaries with the maculation all present and more or less relieved. The ordinary spots whitish, more or less contrasting, and form the most obvious features. Orbicular round, moderate in size, with a central dusky spot. Reniform large, broad, upright, oblong, a little constricted in center, more or less mottled. Basal and s. t. spaces more or less mottled, median space more uniform. Basal line geminate, blackish, filled with whitish scales. T. a. line geminate, outwardly oblique, only a little curved or waved, intervening space more or less powdered but not filled with white. T. p. line makes a rather even and irregular bend over the cell and a little incurve below: it is more or less white-marked but not distinct and tends to become obscure. S. t. line irregular, broken, composed of white scales and not defined. The claviform is black-margined, concolorous, of moderate size, and in no way relieved. Secondaries in the male white, in the female muddy or smoky, with a tendency to yellowish; fringes white. Beneath, powdery; almost white in the male, dull smoky gray in the female; primaries darker in each case, secondaries in the female tending to an outer line and discal spot.

Expands: 1-1.20 inches = 25-30 mm.

*Habitat.* — Southern Arizona, Poling; Kerrville, Texas, Dr. Barnes.



Two males and three females in good or fair condition, none of them dated. The sexual difference is well marked in this species, which is allied to but not of the *olivacea* series. It is a more obscure form, and the tendency seems to be rather to a blackish base on which the ornamentation is picked out with white scales.

***Leucania ferricola*, new species.**

Ground color of head, thorax and primaries a thin rusty red over creamy yellow. Head and thorax more rusty, apparently immaculate; but the thoracic vestiture is compressed and so a little obscured. The primaries have the *albilinia* type of maculation. There is a distinct pale s. t. line which does not extend to the costa, and beyond that the terminal space is bluish; this tint running out to a point below the apex. There is a series of black terminal lunules and beyond it a brown line at the base of the fringes. A brown shade in the cell starts at basal fourth and widening, fills it, including the small black reniform and extending to the s. t. line. There is a short black streak from base along the median vein. There is a black shading below the submedian at base, changing to a brown which reaches the s. t. line; the brown shade limited above by a black streak through the middle of the submedian interspace. There are black dashes in brown clouds in the interspaces before the s. t. line. Secondaries pale with a reddish tinge, a narrow dusky terminal line and a dusky discal spot. Beneath, distinctly yellowish; the costal margins powdered with brick red, and each wing with a small blackish discal spot.

Expands: 1.12 inches = 28 mm.

*Habitat*. — Cochise County, Arizona, in July.

One male in very good condition except for the crushed thorax, from Mr. George Franck. The species is the most brilliant of those belonging to this series and has every detail of the maculation perfectly defined.

***Luperina extensa*, new species.**

Head, thorax and primaries dull brown, with a somewhat luteous tinge as a base. Palpi, head in front and base of collar a little more yellowish in tinge. Abdomen a little lighter, more yellowish. Primaries with the transverse maculation tending to obsolescence. There is a yellow streak through the submedian interspace that extends from base, where it is inferiorly marked by black scales across the t. p. line, and is lost just before the s. t. line. This streak is not contrasting, though perfectly distinct, and the edges are a little diffuse. There is a black streak along inner margin at base. Basal line lost. T. a. line obscurely indicated by blackish scales in the paler parts of the wing. T. p. line single, obscure, darker brown except toward the inner margin where it is emphasized by black scales; somewhat relieved by following yellow scales, its course as a whole a little outcurved over the cell and only a little incurved toward inner margin. S. t. line a little irregular, broken, made up of yellow scales, preceded and followed by black scale shadings, so that the line is clearly distinguishable throughout its course. A series of distinct blackish terminal lunules. Fringes yellowish. Claviform not marked in the specimen. Orbicular

narrow elongate, oblique, edged by black scales. Reniform narrowly kidney-shaped, upright, somewhat dilated inferiorly, yellowish, more or less black-edged. Secondaries washed with dull yellow, the outer border darker, smoky; fringes pale. Beneath, primaries smoky with a silky lustre; secondaries powdery whitish yellow, with apex and costal margin darker; a punctiform extra-median line and a discal dot.

Expands: 1.44 inches = 36 mm.

*Habitat.* — Regina, July 28, at light; T. N. Willing.

One male, in fair condition, secured through the kindness of Dr. James Fletcher. The species has the characteristic appearance of members of this genus and is perhaps closer to my *trigona* than any other. The yellowish longitudinal streak and the narrow, yellow ordinary spots are characteristic.

***Perigea flavistriga*, new species.**

Head, pale red-brown, darkening to the vertex. Thorax dark brown, almost blackish, base and tip of collar and margins of patagia more reddish. Primaries dark smoky brown, almost blackish, powdery, so that nothing is defined, though all the usual lines and markings can be made out. Basal line marked by a geminate black spot on costa only. T. a. line incomplete, marked on the costa and by a black outcurve in the submedian interspace, otherwise hardly traceable. The basal space is somewhat yellow mottled and a distinct yellow streak extends beneath the submedian vein by the t. p. line. T. p. line geminate, the outer line obscure, the inner narrow, lunulate, blackish, emphasized by a yellow powdering which follows it, well curved over the cell and very oblique and even to near the middle of hinder margin. S. t. space is a trifle paler to the s. t. line which is irregular, made up of yellow scales, defined by vague black preceding spots and a generally darker terminal space. There is a broken black terminal line. Claviform not traceable in the specimen. Orbicular narrow, oblong, oblique, incompletely margined with yellow scales, a little paler than the ground. Reniform large, kidney-shaped, incompletely ringed with yellowish, which tinges also the middle of the mark itself. Secondaries smoky; paler, more yellowish at the base and with an obscure discal lunule. Beneath, primaries smoky brown, immaculate; secondaries dull, smoky yellowish, with a smoky outer line and discal lunule.

Expands: 1.32 inches = 33 mm.

*Habitat.* — Lethbridge, Alberta, July 11; T. N. Willing.

A single female in good condition, from Mr. F. H. Wolley Dod (No. 8). It is a robust species with narrow obtusely rounded primaries, the thoracic vestiture flattened hair rather than scales. It belongs with *texana* in general appearance and habitus.

The yellow streak is the most obvious characteristic of this species, which is otherwise powdery and obscurely marked.

**Crambodes abalas, new species.**

Ground color a powdery, dull reddish luteus. Head with white and metallic gray powderings. Thorax with metallic gray powderings, collar and patagia well defined, posterior tuft well marked. Primaries with all the maculation obscure; costa except apex, fringes and most of the median space smoky brown, not strongly contrasting. T. a. line widely outcurved, most obviously so in the submedian interspace. T. p. line outcurved over the cell, incurved below; both lines indefinite. There is a series of black terminal lunules between which the broad dark fringes are cut with the ground color. Orbicular a vague, indefinite small spot of the ground color. Reniform a similarly indefinite lunule. Secondaries soiled whitish, a little darker toward the outer margin; fringes paler. Beneath soiled whitish, a little smoky on the primaries, powdery, with a smoky longitudinal shading from base to middle of wing.

Expands: .88-1.04 inches = 22-26 mm.

*Habitat.* — Cochise County, Arizona, in July.

One male and five females, in fair condition only, from Mr. George Franck. The species is smaller than and quite obviously distinct from our northern species and has more the appearance of *Hadenella pergentilis*, as well as its tuftings. It seems safely referable to *Crambodes*, however.

**Orrhodia insinuata, new species.**

Ground color of head, thorax and primaries dull fuscous brown, overlaid with blackish. Head and thorax immaculate, vestiture loose, somewhat shaggy, thoracic parts not well defined. Primaries with the markings barely traceable and no contrasts of any kind. T. a. line outwardly oblique with moderate outcurves in the interspaces; barely traceable by a slightly darker shading. T. p. line with an even, small outcurve over the cell, and a very slight incurve below; traceable as a very narrow paler line or rather of the ground color free from powderings. S. t. line badly indicated by a slightly paler shading. Orbicular round, of moderate size, with a slightly paler annulus. Reniform, upright, large, a little constricted centrally, slightly darker than the ground. Secondaries a little paler and with thinner scaling than the primaries. Beneath paler than above, with an obscure outer line and on secondaries an obvious discal spot.

Expands: 1.25-1.35 inches = 31-34 mm.

*Habitat.* — Pullman, Washington, May 8 and 9.

Four examples, all females, in tolerably good condition. The species is congeneric with my *Orrhodia californica* and has the same type of markings so far as any can be distinguished. It is only with a glass, however, and with a knowledge of what is sought that they can be made out at all. The species is more loosely clothed than the typical forms and raises the question whether the generic reference may not have to be changed eventually. The specimens do not have

Professor Piper's label, and are, I believe, a part of a lot received subsequent to his removal from Washington.

***Xylina atincta*, new species.**

Ground color dull ashen gray without any greenish or mossy tinge. Antennæ whitish at base. Collar with a subapical black line, a narrow dark line on patagia basing the wings. Primaries with the upper half of basal space whitish, hardly contrasting, the orbicular white or whitish, nearly always contrasting, the reniform with a faint reddish tinge, a trace of which also occurs before the t. a. line on some specimens. There is a slender black basal streak which curves upward and does not reach much if any beyond the middle of the basal space. Basal line geminate, indicated on the costa only. T. a. line geminate, outer portion a little darker and thicker, as a whole a little oblique and outcurved on the interspaces. T. p. line irregular, well curved over the reniform, abruptly bent in below it; geminate broken, inner line more or less lunulate, outer obscure. S. t. line paler than outer margin, preceded by a variably distinct dusky shade, which tends to become broken into spots. There is a series of distinct interspaceal terminal lunules. Median shade obvious in most specimens, crossing obliquely beyond the middle and outwardly diffuse. Claviform small, concolorous, obscurely outlined, scarcely traceable in some cases. Orbicular of good size, narrow, oblique, a little constricted centrally, narrowly black ringed, usually pale filled so as to be contrasting, but sometimes almost concolorous. Reniform large, broadly kidney-shaped, inner margin a narrow black line, outer border gray; the center is obscurely dark and shaded with a more or less obvious reddish tint. Secondaries smoky with a slight tendency to reddish, the fringes paler. Beneath, primaries dark smoky with costal and outer margin reddish gray and powdery; secondaries reddish gray, powdery, with a distinct smoky extra-median line and a well defined discal spot.

Expands: 1.44-1.58 inches = 36-39 mm.

*Habitat*. — Cartwright, Manitoba in September.

Three males and six females all from Mr. Geo. J. Keller, of Newark, who received them from a correspondent unknown to me. The species is not represented in the material sent me by Mr. Heath, nor have I had it from any correspondent in that region. I have a specimen from the mountains of western Pennsylvania that seems to belong here and is probably conspecific. The species resembles *tepida* but is not so well marked and lacks the contrasts of that species.

***Cucullia arizona*, new species.**

Ground color dark bluish ash gray, with the maculation smoky and black, sharply defined. Head deep blackish brown, crossed by black and gray lines. Collar gray, with three blackish and two white transverse lines. Dorsum of thorax black powdered; distorted by pressure and therefore not definitely describable. Primaries with maculation intermediate between *convexipennis* and *montanae*. From the middle of the costa to the outer margin below the apex a paler gray shade extends, leaving the apical space darker than the rest of the wing and relieving the black scale

dots that indicate the margins of the ordinary spots. Below this pale shading is a dark edging that becomes blackish outwardly. Along the inner border a black shading extends to the middle, then expands and extends through the submedian interspace to the outer margin above the apex, cut by a narrow curved gray line indicating the position of the t. p. line. There is a slender basal black line and around it, extending to the middle of the wing, is the long outward tooth of the t. a. line. Secondaries whitish at base, shading into a broad, almost blackish outer band; veins blackish; fringes white. Beneath, primaries evenly blackish; secondaries much as above.

Expands: 1.80 inches = 45 mm.

*Habitat.* — Cochise County, Arizona in July.

One female specimen, in good condition except for the compressed thorax due to papery; from Mr. George Franck. The wing form is as in *convexipennis*, and though the color is totally different, that species is at once recalled by the pale shading from costa to the outer margin.

#### Genus **CONOCHARES**, new.

Has the habitus of an *Acontia* but with somewhat more pointed primaries. Accessory cell of primaries absent in all specimens examined and the genus is therefore allied to *Thalpochares*. It differs by having the front conically produced, abruptly cut off, and the protuberance with a narrow, elevated rim. The genus therefore bears about the same relation to *Thalpochares* that *Conacontia* does to *Acontia*.

The occurrence of four species with apparently similar structure has persuaded me to propose the above generic term, although the forms already described in allied genera are not well-known and collections are scarce.

All the species are from the desert regions of Arizona and adjacent California; and as in so many forms occurring there, the protuberant front is characteristic, and may be indicative of habit. Two of the species have a superficial resemblance to *Acontia arizonæ* in wing form and type of maculation. The others, while similar, yet resemble the true *Thalpochares* more closely.

#### **Conochares acutus**, new species.

Head, thorax and primaries to the middle, white, immaculate. Beyond the wing is gray, more or less white mottled, the white s. t. line obvious, sinuate, the t. p. line more or less obviously marked, curved over cell, and incurved below. There is a series of black terminal marks and the fringes are white. At the inner border of the gray shading, the white base intrudes an acute tooth in the cell, extending to the round, gray, white ringed reniform. Secondaries blackish, fringes white. Beneath, primaries blackish, secondaries white.

Expands: .85-.90 inch = 21-22 mm.

*Habitat*. — Santa Catalina Mts., April 8-15; southern Arizona, May 15.

Two males from Dr. Barnes, one female from Mr. Poling; one of the males defective, yet representative in maculation. The leaden gray primaries with the acute outward indentation in the cell is characteristic.

***Conochaes interruptus*, new species.**

Head, thorax and basal half of primaries white, immaculate. Beyond the termination of the white area, at or a little beyond the middle of the wing, the surface is mottled with olivaceous gray, a little tinged with yellowish in some examples. The margin between the white and gray is sharply defined by a blackish gray line which diffuses outwardly, is oblique in general course, and is usually interrupted opposite reniform, the white extending to that spot which is round, gray, and ringed with white. The s. t. space is more or less mottled with gray and white, the pale s. t. line being always well-defined and a little sinuated. Terminal space gray or mottled. A series of small black terminal dots in some specimens. Fringes white, interrupted by a gray shading opposite cell and sometimes by another at hind angle. Secondaries slightly infuscated, darker outwardly. Beneath, primaries dull yellowish to smoky, secondaries white.

Expands: .80-.87 inches = 20-22 mm.

*Habitat*. — Southern Arizona, April 10, Poling; Phoenix, Arizona, March 12, Griffith; Yuma County, Arizona, in March, Hutson; Argus Mts., California, April, Koebele; Walters Station, California, April, Hutson.

One male and seven females, most of them in rather good condition. Five scattered localities for eight examples, taken by four collectors, argues rather a rare species; but I believe it will be found not uncommon when carefully sought for. As compared with *acutus*, this species is a little smaller, the outer half of wing is distinctly more motiled and with a luteous shading, the dividing line between colors is very even and the fringes are interrupted by gray shadings.

***Acontia dimidata*, new species.**

Head, collar, and anterior portion of thorax gray; remainder of thorax white; abdomen whitish. Primaries white to the middle, where the space is sharply limited by a blackish gray shading which is a little curved and somewhat irregular at the edge. Toward base, the white is irregularly interrupted by gray shadings on the costal region. In the dark portion of the wing there is a mottling of black and whitish scales, and with a lens the maculation can be picked out; but there is nothing clear except a white edging just before the fringes which are based by black scales. Orbicular wanting, reniform barely indicated. Secondaries a little dusky. Beneath whitish.

Expands: .58-.64 inches = 15-16 mm.

*Habitat*.—Redington, Arizona.

One male and one female from Dr. Barnes; both in good condition. There is nothing just like this species, and its associates are *sedata* and its allies.

***Acontia pima*, new species.**

Head, collar and thorax to the origin of the secondaries, white; behind that bluish or steel gray with metallic reflections. Primaries with costal region white to the s. t. line, upper half of cell white to the reniform, interrupted by a little jog at place for orbicular; beyond the reniform the white continues from the upper border of that spot which is upright, oval, small and marked in outline by black scales. Below the white and in the terminal space the wing is gray, overlaid by olivaceous scales with some iridescent blue and violet intermingled. The violet scales form vague lines, indicating the t. a., t. p. and median lines. The s. t. line is indicated by scattered white and bluish scales to the hind angle, above which a curved white line becomes distinct. There is a series of velvety black terminal marks. The olivaceous gray fringes are cut just above vein 2 by a broad white bar, which reaches to or nearly to vein 4. Secondaries whitish, with a dusky outer border. Beneath, maculation of upper side vaguely duplicated.

Expands: .95-1.00 inch = 24-25 mm.

*Habitat*.—Babaquivra Mts., Pima County, Arizona.

Two good males from Dr. Barnes, collected by Mr. Poling. The species is allied to *expolita* from the same region; but is larger, whiter, has half the thorax white and the hind angle of the primaries gray.

***Acontia aniluna*, new species.**

Head, thorax and anterior half of thorax white; posterior portion of thorax including tips of patagia shining slate gray. Primaries slate gray with three large white marks on costa, a white mark below the middle of fringes, and a white lunulate mark above anal angle. Of the costal marks that at base is usually trigonate, but may become oblong; the second is near the middle, is oblong and oblique, like a short band, and abruptly ended; the third is within the apex and more or less triangular with rounded tip, in all specimens. The white cut in the fringe may be narrow, may include two interspaces, and may even extend upon the disc of the wing itself. The anal lunule is a part of the s. t. line, and that may be white marked in other parts of its course. The ordinary lines are traceable as smoky lines, the terminal line black, usually punctiform, but sometimes partly continuous. Orbicular wanting, reniform, partly outlined. Secondaries smoky brown, almost blackish, fringes paler. Beneath, primaries blackish, the white blotches of the upper side vaguely yellowish; secondaries whitish, with a broad dark outer border and a more or less obvious blackish median band. Abdomen gray.

Expands: .80-.92 inches = 20-23 mm.

*Habitat*.—Baboquavaria Mts., Pima County, Arizona, July 15-30; O. C. Poling; Yuma County, Arizona, Hutson.

Eight examples, mostly in good condition and all females. Two specimens came through Dr. Barnes; the others are from Mr. Poling directly, or from Mr. Hutson. At first sight the specimens resemble *quadriplaga*; but the dark secondaries and the maculation of the fringes negated that reference. I am not so sure now that this is not simply the female of *pima* and that the somewhat imperfect specimen that I have associated with the male type does not belong elsewhere. I have no other example, however, of white secondaries and abdomen in the male as against gray in the female, and no such uniform difference in the costal margin. I prefer to give the name, therefore, to call attention to the matter.

***Acontia alata*, new species.**

Head, collar and thorax laterally white; thoracic disc grayish olive with a white central line or broader mark. Primaries dark, even olive gray, costa white nearly to the apex; a white stripe from base below median vein to about the center of the wing, then curved upward and extending obliquely to the costa within the apex. The entire region above this white stripe is more or less white marked. There is a narrow white terminal line and the tips of the fringes are whitish, secondaries smoky yellowish, the fringes paler. Beneath, primaries even, glistening dark gray, secondaries whitish.

Expands: .65-.70 inches = 15-16 mm.

*Habitat*. — Baboquavaria Mts., Pima County, Arizona, July 15-30; O. C. Poling.

Three males and one female, all in good condition; one ♂ from Dr. Barnes, whose label reads "Babaquivera," the others from Mr. Poling direct. The species is altogether unlike any other *Acontia* and is more like *Thalpochares* in appearance, if not in structure. The front is cylindrically protuberant.

***Acontia eudryada*, new species.**

Head, thorax and abdomen white. Primaries white to the outer third at inner margin, and from that point a gray and olivaceous shade extends with an outcurve to the apex, narrowing so as to include only the s. t. space, leaving the terminal space white until just before the apex is reached. At base there is a slate gray costal shade to show the inception of a t. a. line. At middle there is a small trigonate cloud. The outer shading has a golden yellow tinge at the inner edge, and an angulated metallic blue line which extends as a powdering to the apex. Secondaries blackish, paler at base; fringe whitish. Beneath, primaries black clouded; secondaries whitish.

Expands: 1.05 inches = 26 mm.

*Habitat*. — Southern Arizona, August 15-30, Mr. O. C. Poling.



One female specimen, almost perfect. Is allied to *cretata* but larger, with a much narrower outer band and blackish secondaries. It is to my mind the handsomest species in this attractive genus.

**Acontia cuta, new species.**

Head, thorax and abdomen white, the latter with a creamy tinge. Primaries white to the middle, beyond which it is gray except for a lunate mark on the costa. This lunate mark is separated from the white base by an inwardly oblique band of gray, and does not extend to the apex. A white patch in the fringes of outer margin at about the middle. The orbicular is round, of moderate size, concolorous, narrowly brown ringed. Secondaries whitish. Beneath, primaries yellowish, with maculation of upper surface showing faintly. Secondaries whitish.

Expands: .75 inch = 19 mm.

*Habitat.* — Santa Rita Mts., Pima County, Arizona, Dr. Barnes; Baboquavaria Mts., July 15–30, O. C. Poling.

Three female specimens in fair condition. A very simply marked form of the *elegantula* type.

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## A NEW ONCOCNEMIS FROM NEVADA.

By HARRISON G. DYAR, PH.D.,  
WASHINGTON, D. C.

**Oncocnemis bakeri, new species.**

Head brown, collar gray, nearly white at tip; thorax dark gray, abdomen lighter. Forewings gray, powdery, hoary, smoother and brownish terminally. Basal line black, small, slender; t.-a. and t.-p. lines single, black, the t.-a. line slightly arcuate, a little widened on costa, t.-p. line strongly excurved over cell, else nearly regular. Subterminal line lost; orbicular and reniform concolorous, in a scarcely perceptible brownish tint, finely black-ringed and narrowly whitish within this edging; claviform indicated. Hind wing translucent white, smoky tinged on veins outwardly and on extreme margin. Below pale, forewing with a black dash representing the inception of the t.-p. line on the costa. Expanse 28–32 mm.

One ♂ and one ♀, Ormsby County, Nevada (C. F. Baker).

*Type.*—No. 7,777, U. S. National Museum.

It resembles *figurata* Harvey and *simplicia* Smith (the latter is not before me).